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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,238	09/17/2003	Yan C. Huang	023439	6990
1726 7590 03/26/2008 INTERNATIONAL PAPER COMPANY 6285 TRI-RIDGE BOULEVARD LOVELAND, OH 45140				
EXAMINER				
FORTUNA, JOSE A				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
03/26/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/667,238

Applicant(s)

HUANG ET AL.

Examiner

José A. Fortuna

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5 and 7-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 7-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 5 and 7-23 are rejected under 35 USC §103(a). This rejection is set forth in the prior Office action mailed on June 27, 2007.

Response to Arguments

3. Applicant's arguments, see pages 2 through 5 of the remarks, filed on December 27, 2007, with respect to the rejections under 35 U.S.C. §112, second paragraph and 35 U.S.C. §102/103 have been fully considered and are persuasive. The rejection of June 27, 2007 under the above paragraphs has been withdrawn.
4. Applicant's arguments filed on December 27, 2007 with respect to the rejection under 35 U.S.C. §103(a) as obvious in view of US Patent 3,112,214 have been fully considered but they are not persuasive.

Applicants argue that the cited reference, Roberts et al., teaches away from using the components as claimed, because: 1) the reference teaches away from using the boron containing substance to starch ratio, since it teaches that the boron should be within from 1 to 5% : 2) the starch that the reference uses is different than the ones used by

applicants: 3) the claimed embodiments require that the boron-containing compound and the starch to be pre-mixed and then contacted with the sheet; which is different than to use the different components at different times, i.e., not pre-mixed. The arguments are not convincing for the following reasons:

- With regard to 1) the reference teaches that the concentration of the boron in the borax solution is from 1 to 5%, but this is not the concentration of the boron in the paper, but as stated above this is the concentration at which the boron is added to the paper, i.e., the boron is added as an aqueous solution contains 1 to 5% of boron. The examiner arguments is not that they teach the ratio of Boron to starch, but that such ratio would have been obvious to one of ordinary skill in the art, as an obvious optimization of the additives, absent a showing of unexpected results. Note also that it has been held that it is obvious to try, choosing from a finite number of identified, predictable solutions with a reasonable expectation of success. See recent Board decision *Ex parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (Citing KSR, 82 USPQ2d at 1396).
- With regard to 2, applicants have not limited the starch to be a specific starch and the specification teaches that modified starches are included as "starch" then the modified starch of the reference reads in the claims as claimed. Nor were the words that are used in the claims defined in the specification to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms.

- With regard to 3, the claims, except claim 2, are not limited to the way the additives are added and even if they were, the claims are drawn to a product and the process steps to obtain a product are not relevant¹ since a product is evaluated by its properties not by way, process used to obtain, make, form it.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

¹ Unless it can be proved that the method steps or the process as a whole would produce a different product, i.e., a novel and non-obvious product. The burden is shifted to applicants to prove that such steps or process as a whole produce a novel and non-obvious product.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/José A Fortuna/
Primary Examiner
Art Unit 1791

JAF